

Work Order ID 105621

Thursday, August 08, 2013 2:36:50 PM

105621

Page 1

Item ID: D3183-045

Accept

Revision ID:

Item Name: Bearing Assembly

Start Date: 8/8/2013 Start Qty: 40.00

Required Date: 8/22/2013 Req'd Qty: 40.00

40

40

Reference:

Approvals: Process Plan: MLC

Date: 1308-09 Tooling:

QC:

Date: SPC (Y/N):

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw Nbr

Revision Nbr

D3183

Rev C1

100

0.00

100

Hardinge CNC LATHE SMALL

Hardinge

Memo

0.00

Hardinge CNC Lathe Small

Turn D3183-9 Cap as per Folio FA388Dc Burr

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.00

Quality Control

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Date:

Date:

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

20 13.8.12

40

0

20 13.8.12

40

0

DAS
9-83

13/08/13

40

0

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: [Signature] Date: 13/08/22QA Closed: [Signature] Date: 13/08/14

Work Order: <u>105621</u>	DISPOSITION Rework <input type="checkbox"/> Scrap <input checked="" type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D3183-045</u>		Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>
NCR No. <u>13-2937</u>		Machining <input checked="" type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>
		Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>
		Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>	B-8-13	110	①	part scrap outside of dimension it should be 0.276 and not 0.200 Found after QC inspection RC operator error Missed @ inspection	S 13/08/13 052412	part scrap destroyed no replace <u>\$8.61</u>	S 13/08/14	13/08/13 052412	S 13/08/13 052412
Equip/Tooling <input type="checkbox"/>									
Operator <input checked="" type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

Landing Gear	General		
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input checked="" type="checkbox"/> Inspection Incomplete	<input checked="" type="checkbox"/> Part incorrect
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabelled	<input type="checkbox"/> Positioned Wrong
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset	<input type="checkbox"/> Pressure/Forced
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration	<input type="checkbox"/> Temperature/Cure
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Weld
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Wrong Stock Pulled
			<input type="checkbox"/> Other

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Item ID: D3183-045
Revision ID:
Item Name: Bearing Assembly

Accept

N900040100

Setup Start ***NS1***
Stop ***NS2***

Start Date: 8/8/2013 Start Qty: 40.00 ***40***
Required Date: 8/22/2013 Req'd Qty: 40.00 ***40***

Cust Item ID:
Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:
QC: Date: SPC (Y/N):

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours
130	Small Fab	0.00
130		
Small Fab	Memo	0.00
Small Fab	Press D3183-5 Bearing into D3183-9 Cap as per Dwg D3183	

140	QC5- Inspect part completeness to step on W/O	0.00
140		
QC	Memo	0.00
Quality Control		

150	Identify as per dwg & Stock Location ST235B	0.00
150		
Packaging	Memo	0.00
Packaging		

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	--------------	---------------	---------------	------------------	----------------

39x

13/08/13

PTO

39
cant

39x

13-8-13

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Item ID: D3183-045

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Bearing Assembly

Start Date: 8/8/2013 Start Qty: 40.00

40

Cust Item ID:

Required Date: 8/22/2013 Req'd Qty: 40.00

40

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC21- Final Inspection - Work Order Release

0.00

160

QC

Memo

0.00

Quality Control

MLJ 13-08-14

QC 13.8.14

Picklist Print

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Work Order ID: 105621

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Parent Item: D3183-045

D3183-045

Parent Item Name: Bearing Assembly

Start Date: 8/8/2013

Required Date: 8/22/2013

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP A04.02.18New issuckJ/DS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3183-5		Manufactured	No			110	Each	53.0000	1	40			
D3183-5									**				
Bearing													

Location

ST235B

102531

104378

98653

Loc Qty

53

1

50

2

Loc Code

MDEL RINR1.000

Purchased

No

MDEI RINR1 000

Delrin Round Bar 1"

130

f

15.3900

0.0333

1.402105

**

Location

MAT018

125251

Loc Qty

15.39

15.39

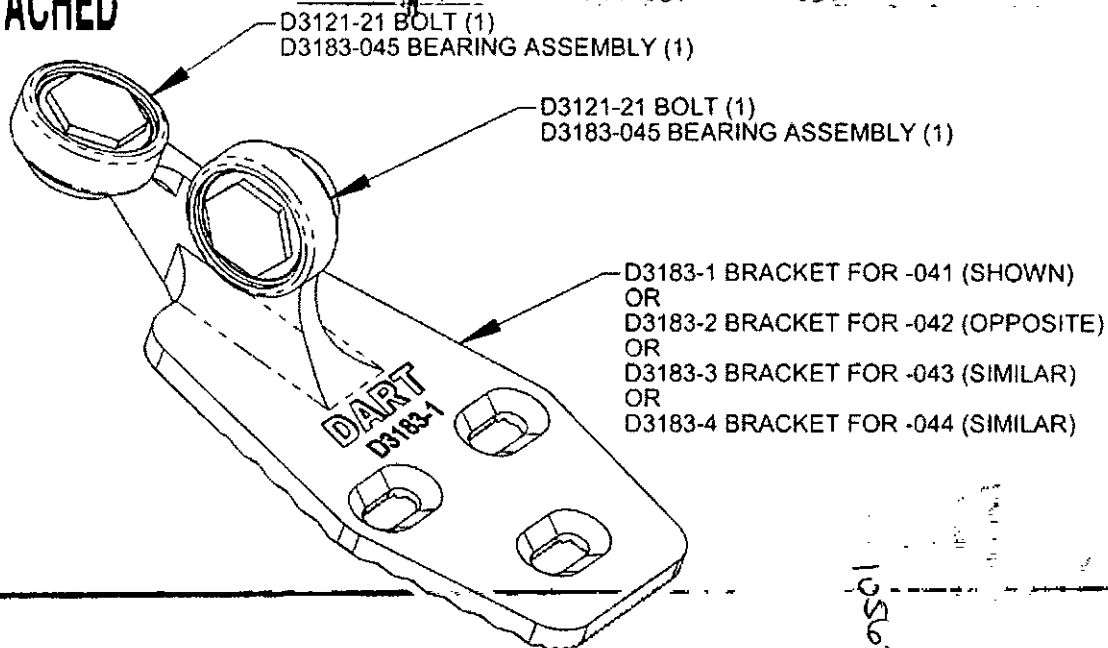
Loc Code

1.581 20 13.8.12

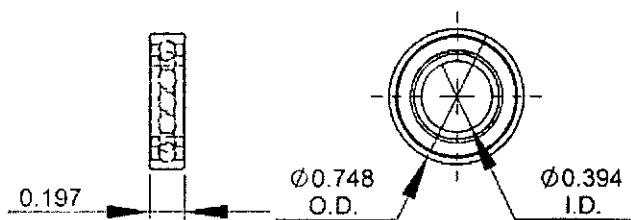


DESIGN #	DRAWN BY #	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY		SCALE 1:1
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
C1	04.11.09	0.830 WAS 0.850	

RELEASED
04 03 01
DEO ATTACHED

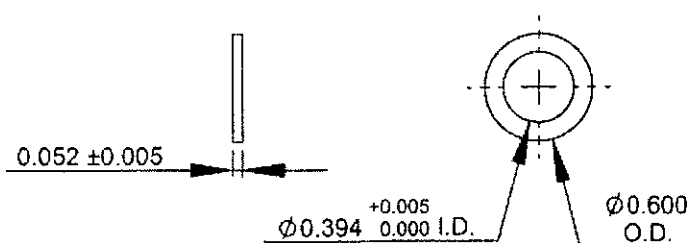


D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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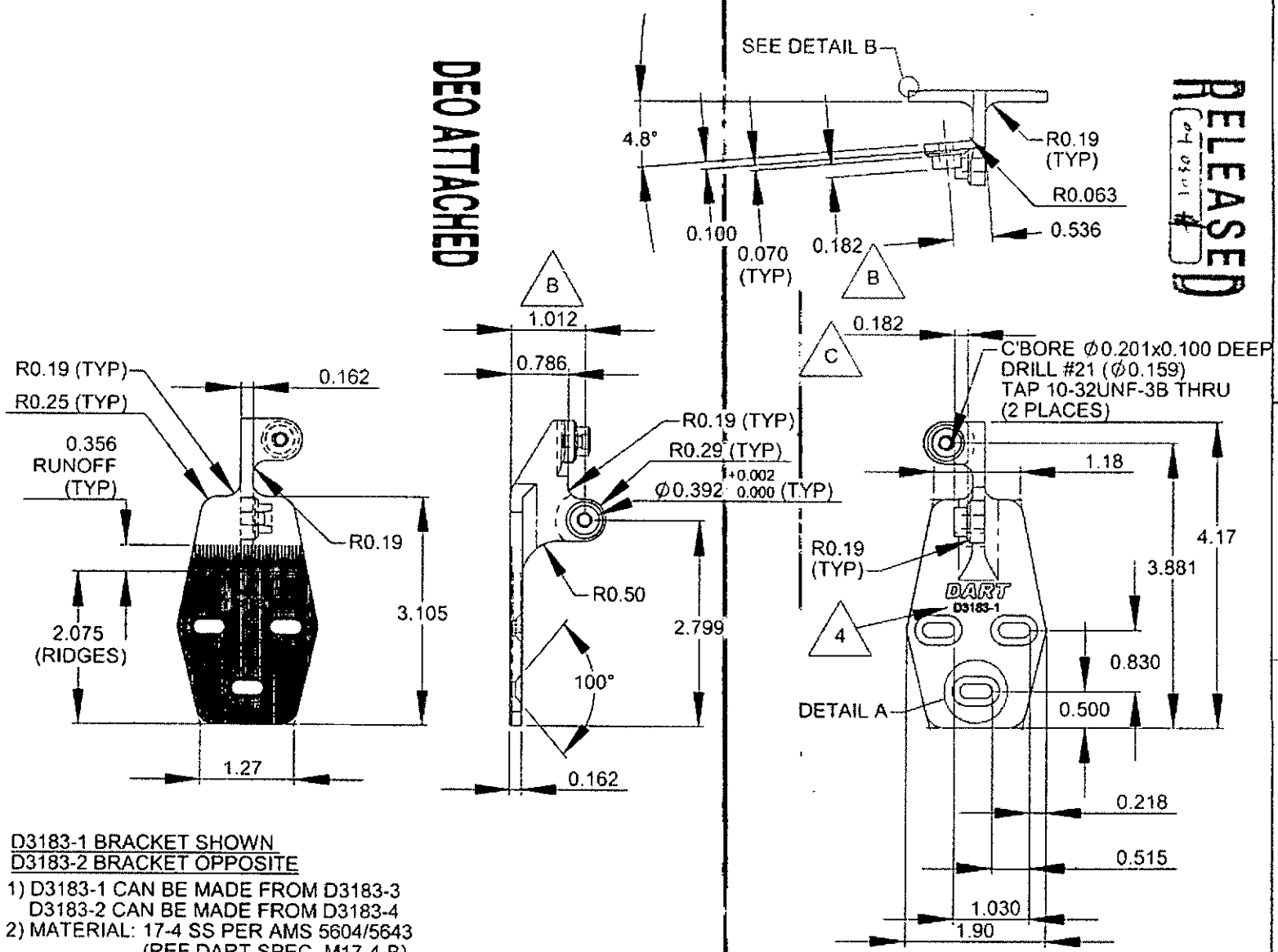
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DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE	DRAWING NO.	REV. C
04.02.17	D3183	SHEET 2 OF 4
TITLE	BRACKET ASSEMBLY	SCALE
		1:2

RELEASED

DEO ATTACHED



- D3183-1 BRACKET SHOWN**
D3183-2 BRACKET OPPOSITE
- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
 - 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
 - 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
 - 4) ENGRAVE DART P/N & LOGO AS SHOWN
 - 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 6) ALL DIMENSIONS ARE IN INCHES

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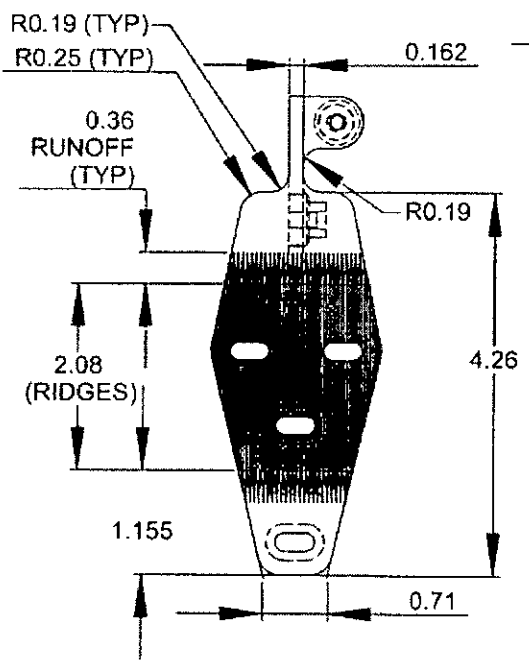
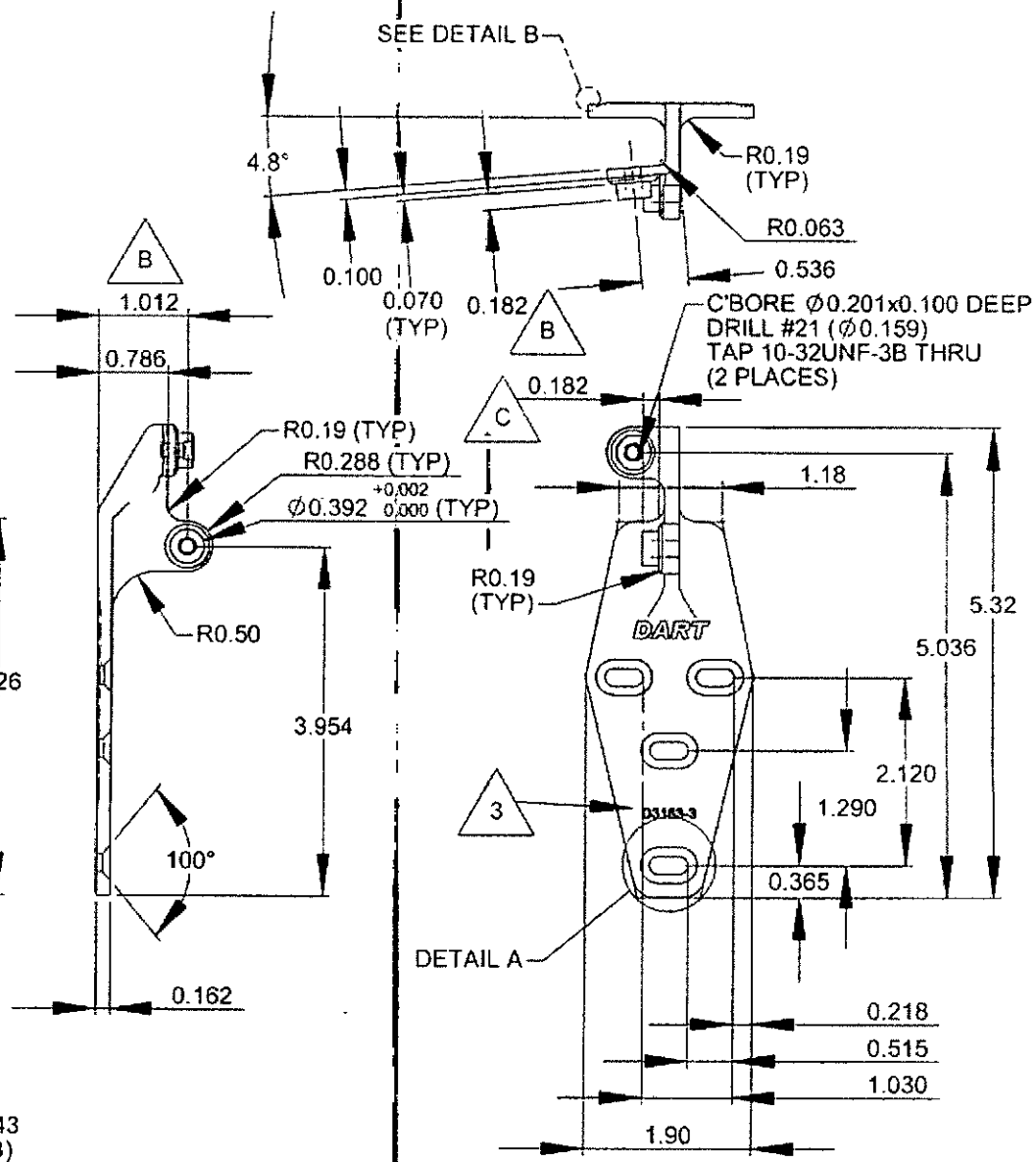
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DART



DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA
DATE 04.02.17	DRAWING NO. D3183	REV. C
	TITLE BRACKET ASSEMBLY	SHEET 3 OF 4
		SCALE 1:2



D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

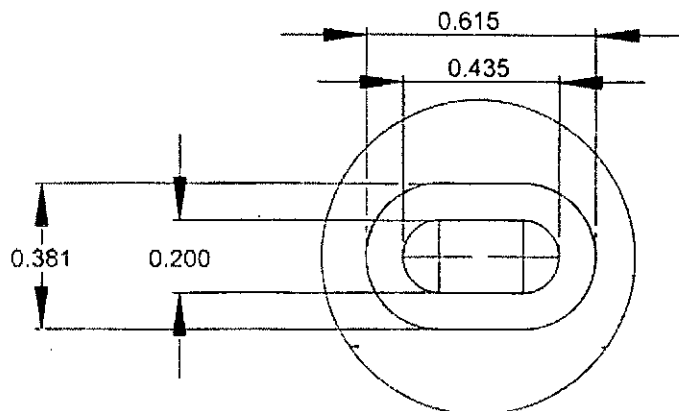
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RELEASED
04-03-01-4

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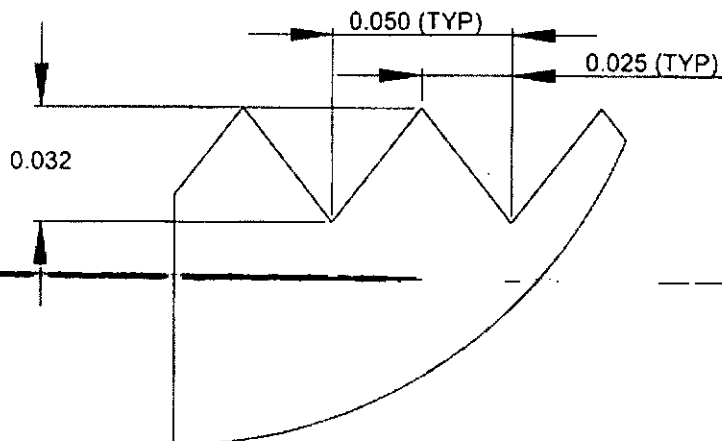
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CHECKED 	APPROVED 	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY		SCALE 1:1



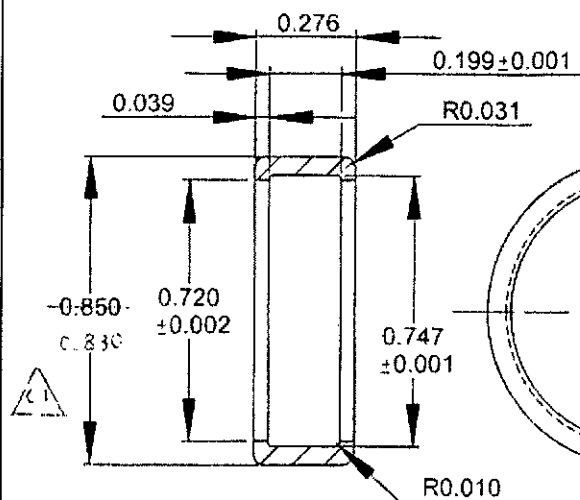
DETAIL A (2:1)

RELEASED
04-03-01

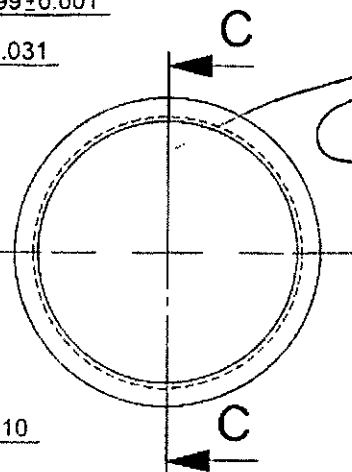
DEO ATTACHED



DETAIL B (20:1)



SECTION C-C
SCALE 2:1



D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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105621

DRAWING NO. D3183	TITLE BRACKET ASSEMBLY	REV.C1	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3183-C1-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN 97	CHECKED J	MFG. APPR. A	APPROVED MP		DE APPR. MP		
DATE 10.05.14	DATE 10.06.30	DATE 10.06.30	DATE 10/06/30		DATE 10/06/30		

D3183-5 BEARING

ADD POSSIBLE SUPPLIER: KML P/N 6800-ZZ

BASIC LOAD RATING REQUIREMENT: Cr = 1720 N (386 lb) MIN [DYNAMIC]
Cor = 840 N (188 lb) MIN [STATIC]

REF PAR 10-012

RELEASED
2010-07-22
MP

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